DOCUMENT RESUME

ED 383 835 CE 069 103

TITLE	Applied Humanities. Course Materials: Critical Thinking and Work Place Ethics; Responsibilities and Rights in a Free Society; History of Technology; Applied Esthetics. Seattle Tech Prep Applied Academics Project.
INSTITUTION	South Seattle Community Coll., Washington.
SPONS AGENCY	Boeing Co., Seattle, Wash.; Department of Education, Washington, DC.
PUB DATE	[93]
CONTRACT	V248A20032
NOTE	47p.; For related documents, see CE 069 098-105.
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Academic Education; Aesthetics; Articulation (Education); *Citizenship; Citizenship Responsibility; *Civics; Community Colleges; Course Content; Course Descriptions; Critical Thinking; Ethics; *History Instruction; Instructional Materials; Integrated Curriculum; Learning Activities; *Philosophy; Technology; *Tech Prep; Two Year Colleges
IDENTIFIERS	South Seattle Community College WA

ABSTRACT

This publication contains materials for four courses in Applied Humanities in the Applied Academics program at South Seattle Community College. It begins with the article, "Community College Applied Academics: The State of the Art?" (George B. Neff), which describes the characteristics, model, courses, and coordination activity that make up this community college applied academics program. Materials provided for each course include the following: course outline (credit, lecture, and lab hours; course description; prerequisites; learning objectives and hours of instruction) and course syllabus (course description; required materials; other policies; weekly schedules). Critical Thinking and Ethics in the Work Place (applied philosophy) is an introduction to critical thinking, logic, and scientific thinking with applications to other courses, everyday life, and work. Responsibilities and Rights in a Free Society (applied civics) examines individual rights and responsibilities in a free society in the practical context of an individual's roles as a citizen and resident of various levels of government, family member, and employee or employer. Applied Esthetics assists the student in developing an esthetic approach to technology and the world of work. Lifecycles of Technology (applied history) teaches students to use historical content, analytical process, research methods, analytical methods, and writing techniques to anticipate, understand, and benefit from changing technology. (YLB)

ED 383 835

Seattle Tech Prep
Applied Academics Project

Course Materials in Applied Humanities

- o Critical Thinking and Work Place Ethics
- o Responsibilities and Rights in a Free Society
- o History of Technology
- o Applied Esthetics

Curriculum Development Sponsor:
Boeing Corporation

Dissemination Sponsor:
U.S. Department of Education Grant Number V248A20032

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Prepared by:

South Seattle Community College
Advanced Technology Center
Applied Academics Project

CE 067 103

BEST COPY AVAILABLE

Community College Applied Academics
The State of the Art?

by George B. Neff

Copyright • 2-20-93

The Applied Academics program at South Seattle Community College is of interest to community college educators involved in or curious about Applied Academics at the post-secondary level and it may be the state-of-the-art. This program is being developed with support from Boeing Corporation and help from CORD (Center for Occupational Research and Development, Waco Texas). CORD assisted in defining the distinguishing characteristics of Applied Academics courses used to shape South Seattle's curriculum. South Seattle Community College's courses are based on these characteristics and are part of an Applied Academics education model developed by the college for the purpose of defining and implementing quality education programs. The Applied Academics program includes courses in: Applied Math, Principles of Technology, Applied Communications, Applied Biology and Chemistry (a new area) and a subject area unique to South Seattle; Applied Humanities. These courses are coordinated with one another and with technical courses in several ways and have been validated by a team from Boeing Corporation. This article describes the characteristics, the model, the courses and the coordination activity that make up one of the most complete and interesting community college Applied Academics programs in the country.

BACKGROUND

South Seattle Community College has been blazing a trail in Applied Academics for over two years. The college is one of four institutions that make up the Seattle Community College District. The South campus is located in a heavily industrialized part of Seattle and has developed a strong area of emphasis in vocational and technical education that round out offerings in college transfer, general studies, and continuing education. The school is viewed as an innovator in vocational and technical education with nationally recognized programs in such diverse fields as Hazardous Materials Management, Food Services, Landscape and Horticulture, and Aviation related technologies. Two years ago, with financial assistance from the Boeing Corporation, the campus began to re-examine the way in which it taught academic subjects to vocational and technical students and to consider adopting the concepts, methods, and or materials of the newly evolving, high school curriculum in Applied Academics. The first two years of this effort focused on initial mastery of the concepts and techniques of Applied Academics, the development of prototype curriculum, and the implementation of initial courses. Last summer, a team of faculty from the school met to document, analyze, and improve current offerings in Applied Academics and to develop some new courses in Applied Biology and Chemistry and in Applied Humanities. The following article describes the results of their summers work.

SECTION I - Distinguishing Characteristics of Applied Academics Courses

The term "Applied Academics" has come to refer to a national standard curriculum consisting of high school courses in Applied Math, Applied Biology/Chemistry and Principles of Technology developed and sold by CORD and similar courses in Applied Communications developed and sold by AIT (Agency for Instructional Technology).

The South Seattle Community College Applied Academics courses are based on the same distinguishing characteristics as the national standard courses and in some cases utilize materials developed by and obtained from CORD or AIT but these are most definitely local products specifically designed for community college students. The development and validation of these courses necessitated the precise definition of the distinguishing characteristics of applied academics courses and the college turned to CORD for help in this critical area.

According to Leno Pedrotti, CORD's founder of Applied Math and Principles of Technology, the distinguishing characteristics of Applied Academics courses include the following:

"*Applied Academics courses are competency based, utilize context based learning, integrate academic concepts into technical courses taught in a work place setting, emphasize cooperative learning and stress the use of principles, laws, formulas and rules in the real world as opposed to focusing on proofs of principles and laws, the derivation of formulas, or the evolution of rules.*"

The emphasis on specific competencies and on putting ideas in context was further stressed in this statement by Leno:

"*Applied Academics tries to show the way in which laws, principles, formulas and proofs are used by real people, in the real world, on the job.*"

The distinguishing characteristics of Applied Academics are summarized as follows:

Applied Academics courses:

- *are competency based*
- *utilize context based learning*
- *integrate academic concepts into technical courses*
- *are taught in a work place setting*
- *emphasize cooperative learning*
- *stress the use of principles, laws, formulas and rules*
- *show how laws, principles, formulas and proofs are used by real people, in the real world, on the job*

The college also developed an education model that supports the implementation of the above characteristics and that defines quality education programs.

SECTION II - The Applied Academics Education Model

The education model includes an Applied Academics mission statement, goals, curriculum guidelines and tools, and instruction guidelines and tools. The purpose of the model is twofold. Not only does the model help insure and facilitate the development of an Applied Academics program that is well anchored in the distinguishing characteristics of Applied Academics, but the model also helps to explicitly define the concept of a quality education and to facilitate the development and delivery of quality education programs.

A. The Mission Statement

The Applied Academics mission statement begins to define a quality education:

"Our mission is to assist in the preparation of persons able to enjoy and discharge the rights, privileges, and responsibilities of citizens in a free society including the rights, privileges and duties of citizenship, vocation, family membership, community membership, and participation in leisure activities."

This mission is consistent with the Presidents education goals, and the SCANS (Secretary's Commission on Achieving Necessary Skills) recommendations, and generally accepted ideas in the tradition of a liberal education as discussed by John Henry Newman in his essays on "The Idea of a University" and the report of the Harvard Committee on a "General Education in a Free Society". Each of these works recognizes that quality education not only prepares good workers but also good family members, community members, and good citizens. The thrust of the current national standard Applied Academics curriculum largely ignores preparation for roles beyond the work place, which is a potentially serious quality problem. South Seattle's Applied Academics program, on the other hand, includes courses in Applied Humanities specifically designed to address preparation for roles not only in but also beyond the work place. The South Seattle Applied Academics mission statement helps focus emphasis on all the roles of a citizen in a free society, a key issue in program quality.

B. The Goals of the Applied Academics Program

The goals of the Applied Academics program are as follows:

"The goals of the South Seattle Community College Applied Academics program are to assist students in leading happy and productive lives as citizens in a free society by providing them with citizenship skills, general work place skills, and specific academic, technical, and vocational skills."

The three level approach to Applied Academics goals (Citizenship, General Work place, and Subject Specific Goals) is unique to South Seattle Community College as far as can be determined but this approach was found to be necessary and useful.

Most skills or competency models (the two terms are used interchangeably in this paper) currently under development try to lump two or more of these categories together and as a result are criticized alternately for over or under emphasis on citizenship vs. work place skills or general vs. specific skills. The three level approach makes the selection of a desirable mix among these elements much easier. The South Seattle goals are defined in more detail in the following section.

Providing Citizenship Skills - Goal 1

Citizenship skills include a knowledge of the rights and responsibilities of citizens in a free society, critical thinking skills, an understanding of work place ethics, knowledge of applied esthetics (i.e. industrial design, human factors engineering etc.), and expertise in applied history (i.e. the techniques of the historian applied to such things as the life cycles of businesses, products, materials and technologies). Esthetics and history are included as citizenship skills because they encourage the consideration of values.

Providing "Citizenship Skills" helps insure that the Applied Academics program turns out not only good workers but also good and complete citizens, a key element is South Seattle's definition of a quality education.

Providing General Work Place Skills - Goal 2

The project did not develop a new list of general work place skills but adopted those skills defined in the SCANS report including five work place competencies and three foundation skills. The SCANS skills seemed adequate for the program and similar enough to the other national general work place competency models being developed to warrant adoption at the time although the college plans to revisit this subject in 1993.

Providing students with "General Work Place Skills" insures that the Applied Academics program and other technical programs turn out individuals not only expert in some vocational or technical facts, but individuals capable of sharing existing facts, acquiring new facts as these become available, applying them in the work place, working effectively with others, assimilating technical change and other job independent, work place skills.

Providing Specific Academic, Vocational, and Technical Skills - Goal 3

Specific academic, vocational and technical skills include academic subject specific, and occupation specific skills that vary with each course of instruction. These skills are developed and documented on a course by course basis.

Providing "Specific Academic, Vocational, and Technical Skills" insure that students receive sufficient specific training to qualify for initial employment and to practice general concepts, theories, laws and proofs.

The Applied Academics goals are based on the mission statement and add specificity to it. The mission statement and goals help insure implementation of the principles of Applied Academics and the delivery of quality education programs but are not complete in and of themselves. What is lacking is a way to insure the incorporation of these concepts into the everyday life of the college. The following Curriculum and Instruction guidelines and tools were adopted or developed for this purpose.

C. Curriculum Guidelines and Tools

The following guidelines assume simple definitions of the terms curriculum and instruction. Curriculum is defined as "what you teach", instruction is defined as "how you teach it".

Curriculum elements in the Applied academics model include a program course mix guideline, a course skills mix guideline, and a standard course outline tool.

Guideline 1 - Course Mix

This guideline insures that technical programs prepare students who are good workers but also good citizens.

"All programs of technical instruction should provide students with a suitable mix of courses in citizenship skills, general work place skills and specific academic, vocational and technical skills."

Guideline 2 - Skills Mix

The second curriculum guideline insures the implementation of the Applied Academics principles of context based learning in general and the principle of the integration of academic materials into technical courses in particular.

"Academic concepts should not only be taught in separate academic courses but should also be integrated into all technical courses."

The Standard Course Outline

The model includes a curriculum tool used to measure the mix of skills included in given course or program, the standard course outline. The standard course outline supports the analysis of program and course level skills mix by spreading total course hours among those citizenship skills, general work place skills and specific academic, vocational and technical skills included in the course.

The hours of instruction identified in each course outline may be added together to evaluate the overall mix of instruction provided in any existing or proposed program of study. This approach provides a general control over course and program mix.

D. Instruction Guidelines and Tools

Instruction elements included in the model are a Context Based Instruction Guideline, a Cooperative Learning Guideline, a Utility Guideline and a Course Syllabus Tool. These elements implement the distinguishing characteristics of Applied Academics.

Guideline 1 - Context Based Instruction

Applied Academics courses, more than anything else, teach abstract ideas by putting them in "context".

"Applied Academics courses should be taught in the context of real world settings including the work place, home, and community."

Guideline 2 - Cooperative Learning Techniques

Today's work place puts heavy emphasis on team work. This emphasis is reflected in the Applied Academics program.

"Applied Academics courses should emphasize cooperative learning as a primary instruction model where appropriate."

The college also emphasizes capstone team projects in year two of technical degree programs.

Guideline 3 - Utility

The utility guideline is a key in transforming traditional academic courses into Applied Academics courses.

"Applied Academics courses should stress the use of principles, laws, formulas, and rules in the real world as opposed to the proof of principles and laws, the derivation of formulas, or the evolution of rules."

Guideline 4 - Competency Based Instruction

Competencies or Skills (the terms are used interchangeably in this document), are a key in tieing together instruction between high school and the community college or between related courses in a series of courses.

"Applied Academics courses will provide instruction in clearly defined Citizenship Skills, General Work Place Skills, and Subject Specific Skills."

The Standard Course Syllabus

The above instruction guidelines are reflected in the standard course syllabus. The standard syllabus encourages instructors to consider and to describe the implementation of the above instruction guidelines when creating or selecting teaching methods for Applied Academics courses.

The above Applied Academics education model, including the mission statement, goals, curriculum guidelines and tools and instruction guidelines and tools support the development and implementation of quality Applied Academics programs at South Seattle Community College.

SECTION III - Impacts of the Model on Instructors

Instructors have had a variety of feelings and experiences in attempting to deal with the subject of applied academics and to understand and use the concepts and tools described in this article. Some general patterns appear to be as follows.

In the initial phases of Applied Academics some of the teachers trained in classic academic disciplines felt suspicious about the heavy work place emphasis of the program and doubtful about course and program quality and intent.

In an effort to deal with these initial concerns academic teachers were drawn together with technical faculty and representative of the business community for twice monthly meetings during the summer of 1992.

This project known as the Applied Academics Task Force operated with funding support from the Boeing Corporation and had as its goal the definition of the Education Model described in this article, the development of the Applied Humanities and Applied Biology and Chemistry courses and the analysis and documentation of the college's existing courses in Applied Math, Principles of Technology, and Applied Communications.

The project provided academic and technical teachers with an opportunity to get together outside the press of the academic year, to develop some additional rapport and empathy and to take control, in a sense, of what had been a potentially troublesome topic. This process in and of itself helped teachers feel more in control of things.

The isolation of the distinguishing characteristics of Applied Academics and the reduction of these concepts to some practical guidelines and tools for course development, curriculum and instruction also helped individuals in their understanding of and comfort with this subject.

A related pattern also emerged. It became clear that **every teacher involved in the project was already teaching Citizenship Skills, General Work Place Skills and Specific Skills in every course without being asked to do so and, in some cases, without really focusing on this fact.** Once the three part skills structure (Citizenship Skills, General Work place Skills and Specific Skills) was defined the teachers quickly saw the pattern in their courses. The fact that all the teachers, academic and technical, shared an interest in all three skills areas helped bond the group.

The structure also was a challenge to the instructors when it came to allocating course hours to skills. It was often the case that more then one kind of skill was taught in a single course activity, for instance, presenting a project to the class could involve not only speaking skills but also an understanding of technical facts related to the project, thinking, speaking, listening, and teamwork skills. These structural challenges were ultimately met with some creative solutions by the team members.

In summary, instructors finished the project with a better appreciation of one another and a new confidence in their ability to define and deliver Applied Academics courses.

SECTION IV - Courses in the Applied Academics Program

The Applied Academics program at South Seattle Community College includes three courses in Applied Math, three in Principles of Technology, four in Applied Communications, four in Applied Biology/Chemistry, and four in Applied Humanities.

The courses in Applied Humanities are unique to South Seattle and include Applied Civics, Applied Philosophy, Applied History and Applied Art. Some detail regarding these courses is provided below because they are unique to South Seattle

A feel for the content of the program is provided in the following course highlights:

Applied Math

Applied Math is currently a three course series. The first course in the series introduces students to applied algebra, geometry, trigonometry, and statistics. This course includes abgebraic operations, exponents, roots, scientific notation, dimensional analysis, significant digits, the metric system, first degree equations, plane and solid geometry, solution of right triangles, functions, graphs, descriptive statistics, calculator fundamentals, and applications. This course is designed to be compatible with the modules used in CORD's Applied Mathematics curriculum.

Principles of Technology

The first course is a blend of technology principles with lab practices that involve Mechanical, Fluid, Electrical, and Thermal Systems that are used by technicians in their everyday work.

The second course is a continuation of applied physics with accentuation on rate, energy, power, momentum, resistance and force transformers.

The third course is a continuation of applied physics with accentuation on energy converters, transducers, vibrations and waves, time constants, radiation, and optical systems.

Applied Communications

The first course is designed for technical students and serves as an introduction to communication skills in the work place. Students assess, practice, and improve their oral and written skills in a variety of business formats. This course is coordinated with a computer application course to encourage integration of writing and computer skills.

The second course involves the preparation of a detailed career plan by each student and results in the production of a document in a formal business report format with front matter, a body and complete back matter. This course interfaces with the schools counseling and career services functions, uses skills and careers data banks and library business reference functions, and involves extensive use of the computer.

The third course is coordinated with the students technical program and focuses on communications issues related to second year technical capstone projects. During the year students develop project plans, status reports, research plans, conduct research, do project reports and make speeches. At the end of the year the technical projects, reports and speeches are presented to business advisors and prospective employers in formal end of the year meetings.

Applied Biology and Chemistry

This is a four course series. In these courses biology and chemistry are treated as a unified science.

The first course includes the sources, uses, and problems relating to natural resources and the properties, uses, quality and cycles of water, air and other gases. This course is designed to be compatible with the modules used in CORD's Applied Biology/Chemistry curriculum.

The second course includes components of the continuity of life including genetics, reproduction, and evolution. Food sources and effects of diet on nutrition and disease transmission, prevention, and treatment in plants and animals are also discussed.

The third course included photosynthesis and the role of nutrients in plant growth and reproduction; animal anatomy and physiology of life processes; and types, benefits and hazards of microorganisms to humans as well as biotechnology applications of microorganisms.

The fourth course includes the sources, properties, and uses of synthetic materials; control of home, community and industrial waste, and waste management; and animals and plants sharing space and resources in a community.

Critical Thinking and Ethics in the Work Place (Applied Philosophy)

Critical Thinking and Ethics in the Work place is an introduction to critical thinking, logic and scientific reasoning with applications to other courses, everyday life and work. It is been created with technical education students in mind; whenever possible topics are related directly to the programs of study and future careers of technical education students.

Responsibilities and Rights of Citizenship (Applied Civics)

This course examines individual rights and responsibilities in a free society in the practical context of and individual's roles as a citizen and resident of various levels of government, family member and employee or employer. The course distinguishes between legally enforceable rights and obligations and those rights and responsibilities that are considered essential to a free society. The course assists students in thinking clearly about these issues and adds the dimension of values to the process of this critical thinking.

Lifecycles of Business, Products, and Technologies (Applied History)

This course enables students to use history: its content, analytical process, research methods, analytical methods and writing techniques to anticipate, understand and benefit from changing technology. The course provides the student with insight into the nature of the life cycles of products, materials and processes using the techniques of research, analysis, and writing of history.

Industrial Design And Human Factors (Applied Art)
This course assists the student in developing an esthetics approach to technology and the world of work. The concepts of quality, beauty, good design, and a good work environment are explored from a variety of viewpoints including the philosophical, multi-cultural, psychological, economic, and technological. The course considers esthetics values, the psychology of perception, social values, economics and design, production, materials, and vocational applications.

SECTION V -Inserting New Applied Academics Courses into Established Programs

An interesting set of problems occur when considering how to insert new courses in Applied Academics into existing technical programs. The first fact usually associated with this process is that there is never any extra time for additional courses. The inevitable consequence of this is that new courses must be used as substitutes for existing courses. All the courses described above were developed as substitutes for existing traditional academic courses, some of which were required some electives. But course substitution can be a real pandora's box.

Usually, instructors of current academic courses are schooled in traditional academics and are not hired to be experts in the nuances of the work place. These instructors sometimes see work place preparation as something separate from academics and sometimes beneath traditional academics and may or may not be inclined toward change in any event. Even in the best of cases, where academic instructors are expert in the ways of the work place, enthusiastic about the mission of work place preparation and natural innovators they may not be conversant with the distinguishing characteristics of Applied Academics and the underlying methods of Applied Academics and will therefore be unable to develop and deliver suitable applied courses.

The solution to these problems are not easy to implement but they are simple conceptually. The first decision to make is "can the instructor of an existing traditional academic course develop and deliver a substitute Applied Academics course?". If the answer is not a resounding unqualified yes, then the best approach is recruiting. The second decision to make, if the answer is yes, is "what kind of help will that instructor need in developing and implementing the course?". Some answers to this second question from South Seattle's experience are:

- Provide compensated time outside the press of daily affairs for training and course development.
- Assign instructors to work in teams that include academic instructors, technical instructors and business people.
- Discuss underlying education values.
- Provide an Education Model or some other form of structure within which course development occurs and that insures conformance to agreed upon concepts and values.

The processes of developing Applied Academics courses and of inserting them into existing technical programs present some real challenges but success is possible given the right approach.

SECTION VI - The Coordination of Applied Academics Courses

The distinguishing characteristics of Applied Academics courses suggest that much can be gained from demonstrating the application of academic concepts by relating the concepts to technical subjects.

South Seattle's experience in this area began with the development and implementation of two coordinated courses, an Applied Academics course in Communications, and a course in Computer Applications. In these coordinated courses, students were taught concepts in written and oral communications, and research in the Communications class and were then given a chance to apply these concepts using computer tools (i.e. word processors, presentation graphics and aides, CD-ROM and on-line data bases). This effort met with great success and has led to the coordination of new Applied Communications courses with campus career services and with second year, capstone technical projects.

One of the difficulties in developing and implementing such coordinated courses is the extra time it takes instructors to develop the course and coordinate delivery. The college is fortunate in being able to use faculty development funds to provide stipends to two instructors each quarter, to develop and deliver one new set of coordinated courses.

SECTION VII - Business Validation

The South Seattle Community College Applied Academics program is being validated by the Boeing Corporation as part of their ongoing support to the project. A team of Boeing executives representing corporate business practices, pre-employment screening, and management development, were asked to evaluate all the Applied Academics courses at a high level and to evaluate the Applied Humanities courses in detail. The Boeing team found that the overall Applied Academics program design was on target and that the proposed courses in Applied Humanities were in some cases necessary and in some cases desirable. The Boeing team also proposed some changes on a course by course basis that are being incorporated in the design.

SECTION VIII - Summary

South Seattle's Applied Academics program is still evolving and is by no means complete at this time but the existence of a formal Applied Academics Education Model coupled with community college courses in the newer areas of Applied Communications, Applied Biology and Chemistry and Applied Humanities make it one of the most complete and innovative programs of its type, it may be the state-of-the-art.

Some major issues in Applied Academics have yet to be explored by the college and are targeted for future inquiry. On question is "Do employers really want students who think for themselves and who have highly developed ethical sensitivities?". Another is "Are students who have spent time mastering citizenship competencies and general work place competencies at a disadvantage in competing for entry point jobs with students who do not have these skills but have more occupation specific skills. The question will be explored with the help of a team of Boeing Executives in the coming months.

Another question is the relationship of Applied Academics to English-as-a-Second Language (ESL), and Adult Basic Education (ABE) programs. The Applied Academics courses are required courses for students in a wide range of technical programs. Students taking courses in ESL, ABE might benefit from the principles of teaching in applied context, making it easier for special population of students to access college-level education.

These are but a few more interesting issues to be explored in the further development and refinement of Applied Academics at South Seattle Community College in the future.

COURSE OUTLINE

DEPARTMENT: Technology Education

CURRICULUM: Undetermined

COURSE TITLE: Critical Thinking and Ethics in the Workplace

COURSE NUMBER: HUM 111

COLLEGE TRANSFER:

TYPE OF COURSE: Vocational

CREDIT HOURS: 5

HOURS: 50

CLASS SIZE: 24(MAX)

COURSE DESCRIPTION: Critical Thinking and Ethics is the Workplace is an introduction to critical thinking, logic and scientific reasoning with applications to other courses, everyday life and work. It is been created with technical education students in mind; whenever possible topics will be related directly to the programs of study and future careers of technical education students.

Students will learn to:

1) Evaluate claims and arguments as they appear in textbooks, course work, newspapers and magazines, advertisements, political speeches, conversations, etc.;

2) Recognize the most common types of faulty reasoning;

3) Understand the principles of logic which make possible the modern digital computer;

4) Understand scientific reasoning;

5) Apply sound reasoning to ethical issues, especially those which arise in the workplace.

COURSE HISTORY: Developed by Tom Pierce, Summer, 1992

PREREQUISITES: None

COURSE OUTLINE (CONT.)

LEARNING OBJECTIVES: **HOURS OF INSTRUCTION**

A. CITIZENSHIP KNOW-HOW:

1. RIGHTS AND RESPONSIBILITIES ____
2. CRITICAL THINKING ____
3. WORKPLACE ETHICS 8
4. APPLIED AESTHETICS ____
5. LIFE CYCLES ____

B. WORKPLACE KNOW-HOW:

FIVE WORKPLACE COMPETENCIES

1. Resources:
   1) Time ____
   2) Money ____
   3) Material and Facilities ____
   4) Human Resources ____

2. Interpersonal:
   1) Participates as Member of a Team ____
   2) Teaches Others New Skills ____
   3) Serves Clients/Customers ____
   4) Exercises Leadership ____
   5) Negotiates ____
   6) Works with Diversity ____

3. Uses Information
   1) Acquires and Evaluates Information ____
   2) Organizes and Maintains Information ____
   3) Interprets and Communicates Information ____
   4) Uses Computers to Process Information ____

4. Systems:
   1) Understands Systems ____
   2) Monitors and Corrects Performance ____
   3) Improves or Designs Systems ____

5. Technology:
   1) Selects Technology ____
   2) Applies Technology to Task ____
   3) Maintains and Troubleshoots Equipment ____

COURSE OUTLINE (CONT.)

THREE FOUNDATION SKILLS

1. Basic Skills:	
1) Reading	____
2) Writing	3
3) Arithmetic/Mathematics	____
4) Listening	____
5) Speaking	____
2. Thinking Skills:	
1) Creative Thinking	2
2) Decision Making	5
3) Problem Solving	5
4) Seeing Things in the Minds Eye	____
5) Knowing How to Learn	____
6) Reasoning	25
3. Personal Qualities:	
1) Responsibility	____
2) Self-Esteem	____
3) Sociability	____
4) Self-Management	____
5) Integrity/Honesty	____

COURSE OUTLINE (CONT.)

C. **VOCATION or OCCUPATION SPECIFIC KNOW-HOW**: includes machine, process, product, material, or industry specific instruction and varies with each program.

1. _____ _____

2. _____ _____

Submitted by: _____ Date: _____

Approved by: _____ Date: _____

COURSE SYLLABUS

COURSE NUMBER: HUM 111

COURSE TITLE: Critical Thinking and Ethics in the Workplace

SECTION NUMBER: Undetermined

INSTRUCTOR: Tom Pierce

OFFICE LOCATION: RS167

OFFICE HOURS: 11:00-11:50, daily

QUARTER: Fall, 1992

OFFICE PHONE NUMBER: 764-5371

HOME PHONE NUMBER:

ROOM NUMBER: Undetermined

LAB HOURS: None

COURSE DESCRIPTION: Critical Thinking and Ethics is the Workplace is an introduction to critical thinking, logic and scientific reasoning with applications to other courses, everyday life and work. It is been created with technical education students in mind; whenever possible topics will be related directly to the programs of study and future careers of technical education students.

Students will learn to:

1) Evaluate claims and arguments as they appear in textbooks, course work, newspapers and magazines, advertisements, political speeches, conversations, etc.;

2) Recognize the most common types of faulty reasoning;

3) Understand the principles of logic which make possible the modern digital computer;

4) Understand scientific reasoning;

5) Apply sound reasoning to ethical issues, especially those which arise in the workplace.

REQUIRED MATERIALS: Moore and Parker, Critical Thinking, 3rd ed.

OPTIONAL MATERIALS: None

COURSE SCHEDULE

Week 1

What are critical thinking and logic?
Facts and opinions
Arguments
The importance of clarity: definitions, ambiguity, vagueness

Reading: Moore and Parker, Chapters 1 and 2

Week 2

Evaluating claims
Relevance of personal observations and background knowledge
Assessing the credibility of experts
Explanations
- Explanations and arguments
- Explanations and justifications
- Physical, psychological and functional explanations
- Evaluating explanations

Reading: Moore and Parker, Chapters 3 and 4

Week 3

Nonargumentative persuasion
- Slanters
- Manipulation in the news media and advertising

Pseudoreasoning

Reading: Moore and Parker, Chapters 5 and 6

Week 4

Pseudoreasoning continued

Reading: Moore and Parker, Chapter 6 (continued) and 7

Exam 1

Week 5

Arguments
Deduction and induction
Common types of valid and invalid arguments
Understanding and evaluating arguments

Reading: Moore and Parker, Chapter 8

COURSE SCHEDULE (CONT.)

Week 6

Categorical logic

Reading: Moore and Parker, Chapter 9

Week 7

Truth-functional logic
Logic and computers

Reading: Moore and Parker, Chapter 10; handout on computers

Week 8

Continuation of Week 7

Exam 2

Week 9

Inductive arguments
Analogical arguments
Inductive generalizations
Causal arguments
Experimental and nonexperimental cause-effect studies
Science and Pseudoscience

Reading: Moore and Parker, Chapters 11 and 12

Week 10

Moral reasoning
Schools of moral thought
Application of moral reasoning to the workplace
Case studies of ethics in the workplace

Reading: Moore and Parker, Chapter 13; handouts on workplace ethics

Exam 3

COURSE SCHEDULE (CONT.)

EVALUATION POLICY:

There will be three exams of equal weight. Students will be tested on each section of the course only once, although some sections require mastering and remembering material from a previous section. The final is not comprehensive; it is simply the last exam. All exams will be take home and announced about one week prior to the exam date. There will be a variety of question types, but most will require some writing. Cooperative works will be encouraged on some questions. Ten per cent of the grade on each exam will be based on the quality of your writing. The average grade on the exams will be 75% of your final grade.

Homework. There will be one homework assignment due each week. These will involve problem-solving, explanations of key concepts, applying ideas to case studies and a variety of other tasks. Homework projects will often be similar to and useful preparation for exam questions. Occasionally students will be divided into groups to work on these activities. Assignments must be turned in but their content and writing will not be graded; only thorough completion is required. A complete assignment will receive full credit, an incomplete assignment no credit. Late homework assignments will not be accepted under any circumstances. The average grade on the homework assignments will be 25% of the final grade.

GRADING PROCEDURE: Exams and homework will be graded on a point scale with 90% of the possible points required for an A, 80% for a B, 70% for a C and 50% for a D. Although 50% is listed as the minimum passing grade, anyone who tries, i.e., takes all exams, attends regularly, and shows a willingness to work will pass.

ATTENDANCE: An attendance record of 90% or better will be rewarded with 0.1 point being added to the final decimal grade.

CHEATING: Cases of suspected cheating will be reported to the Dean of Students Office.

LATE ASSIGNMENTS: Late homework assignments will not be accepted.

MAKE-UP EXAMS: Reasons for missed exams will be evaluated individually and make-ups allowed or disallowed accordingly.

COURSE SCHEDULE (CONT.)

CONFORMANCE TO GUIDELINES: Explain how the course conforms to each of the following instruction standards:

"All Applied Academic courses will be taught in the context of real world settings, including the home and community."

Critical Thinking and Ethics in the Work Place forcuses on reasoning in everyday life and as such makes use of numerous real life examples from newspapers, magazines, television, and various trade and technical journals. Ethical issues examined will always be those most likely to arise in the work and personal lives of students.

"All Applied Academics courses will emphasize cooperative learning as a primary instruction model."

Homework assignments will often be group activities conducted both in and out of class. Some exams will include group take-home problems.

"All Applied Academics courses will stress the use of principles, laws, formulas and rules in the real world as opposed to focusing on proofs of principles and laws, the derivation of formulas or the evolutions of rules."

Critical thinking courses generally contain few formulas or proof procedures. Only one section requires some formality, the section on truth-functional logic. Here the logic is done not for its own sake but for the sake of understanding the modern digital computer.

SUBMITTED BY: Tom Pierce **DATE:** September 14, 1992

APPROVED BY: **DATE:**

COURSE OUTLINE

DEPARTMENT: Technical Education Division

CURRICULUM: Undetermined

COURSE TITLE: Responsibilities and Rights in a Free Society

COURSE NUMBER: HUM 112

COLLEGE TRANSFER: Undetermined

TYPE OF COURSE: Preparatory

COURSE LENGTH: One Quarter

CREDIT HOURS: 3

HOURS:

Lecture Hours	24
Lab Hours	
Homework Hours	48
Other Hours	10
Total Hours	82

CLASS SIZE: 20

COURSE DESCRIPTION: In this course students examine induvidual responsibilities and rights in a free society in the every-day practical context of an individuals' roles as an employee or employer, a family member and a citizen at various levels of government. Distinguishing between legally enforceable responsibilities and rights and those considered essential to the functioning of a free society, the course examines the relationship between responsibilities and rights and various degrees of authority. The course assists students in thinking clearly about these issues and adds the dimension of values to the critical thinking process.

COURSE HISTORY: Developed by Robert Free in September, 1992

PREREQUISITES: None

COURSE OUTLINE (CONT.)

LEARNING OBJECTIVES:	HOURS OF INSTRUCTION
A. CITIZENSHIP KNOW-HOW	
1. RESPONSIBILITIES AND RIGHTS	24
2. CRITICAL THINKING/WORKPLACE ETHICS	
3. APPLIED AESTHETICS	
4. LIFECYCLES OF TECHNOLOGY	
B. WORKPLACE KNOW-HOW	
FIVE WORKPLACE COMPETENCIES	
1. Resources:	
1) Time	1
2) Money	
3) Material and Facilities	1
4) Human Resources	
2. Interpersonal:	
1) Participates as Member of a Team	1
2) Teaches Others New Skills	
3) Serves Clients/Customers	
4) Exercises Leadership	
5) Negotiates	2
6) Works with Diversity	2
3. Uses Information:	
1) Acquires and Evaluates Information	2
2) Organizes and Maintains Information	2
3) Interprets and Communicates Information	2
4) Uses Computers to Process Information	
4. Systems:	
1) Understands Systems	2
2) Monitors and Corrects Performance	
3) Improves of Designs Systems	
5. Technology: (See Vocation Specific Know-How)	

COURSE OUTLINE (CONT.)

THREE FOUNDATION SKILLS:

1. Basic Skills:	
1) Reading	2
2) Writing	3
3) Arithmetic/Mathematics	
4) Listening	1
5) Speaking	2
2. Thinking Skills:	
1) Creative Thinking	1
2) Decision Making	1
3) Problem Solving	2
4) Seeing Things in the Mind's Eye	1
5) Knowing How to Learn	
6) Reasoning	1
3. Personal Qualities:	
1) Responsibility	4
2) Self-Esteem	
3) Sociability	
4) Self-Management	2
5) Integrity	2

C. ACADEMIC SUBJECT/OCCUPATION SPECIFIC KNOW-HOW

This course provides students with the ability to discharge and exercise the following responsibilities and rights in a thoughtful way consistent with their personal values.

1.	Responsibility to protect employer's interest	1
2.	Responsibility to perform work effectively	1
3.	Responsibility to maintain occupational proficiency	1
4.	Responsibility to serve on a jury	1
5.	Right to a jury trial	1
6.	Responsibility to pay taxes	1
7.	Right to security of person and property	1
8.	Responsibility to protect persona and property	1
9.	Right to own property	1
10.	Right to use public facilities	1
11.	Right to vote	1
12.	Responsibility to support one's children	1
13.	Responsibility to raise ones children abuse free	1
14.	Right to attend school	1
15.	Right to earn a living	1

etc.

Submitted by: _____ Date: _____

Approved by: _____ Date: _____

BEST COPY AVAILABLE

COURSE SYLLABUS

GENERAL INFORMATION:	
COURSE NUMBER:	HUM 112
COURSE TITLE:	Responsibilities and Rights in a Free Society
INSTRUCTOR:	
OFFICE LOCATION:	
OFFICE HOURS:	
OFFICE PHONE NO:	
COURSE DESCRIPTION:	In examining the premise that every freedom has a correlative responsibility, the student is given a practical knowledge of individual responsibilities and rights of an individual in their private roles as an employee, employer, family member and as a citizen in a free society.
REQUIRED TEXTBOOK:	(To be announced)
REQUIRED READING:	(To be announced)
COURSE SCHEDULE:	(See the following Weekly Schedule)
EVALUATION POLICY:	Assignments are due the date assigned. Assignments will receive a preliminary grade when submitted.
GRADING PROCEDURE:	40% of the grade will be based on completing assignments. 40% will be based on examinations. 20% will be based on student participation.
ASSIGNMENTS:	Write a book report on a book approved by the instructor which deals with the subject of individual responsibilities and/or rights.
OTHER POLICIES:	Any unexcused absence will be cause of being dropped from the course. Excuses from licensed health care professionals are accepted. Excused absence does not relieve the student of having lecture materials. Students missing lectures are responsible for finding out what they missed from a classmate.
OTHER POLICIES:	Cheating, plagiarism, hurtful or harmful behavior toward others, and violation of good safety practices shall be grounds for discipline pursuant to school rules.

COURSE SYLLABUS (CONT.)

CONFORMANCE TO STANDARDS: Explain how the course conforms to each of the following instruction standards:

"All Applied Academics courses will be taught in the context of real world settings including the workplace, home and community."

When possible, discussion will take place in the setting--workplace, home or civic meeting--in which the problems are dealt with. Students will role play consistent with the context of the setting. Professionals actually dealing with the concepts, ideas and skills being dealt with will participate. Hypothetical problems taken from actual cases will be used a the means of looking at options to solve problems. For example, if the issue being discussed is abortion rights, people on each side of the issue, plus those enforcing the rights of the individuals involved will participate in the discussion.

"All Applied Academics courses will emphasize cooperative learning as a primary instruction model."

In discussing any issue, two or more students will role play as a team on each side of the issue. To the eextent possible, research, writing and editing will be done in twos to emphasize team work and cooperation. Assignments will be on a team or pair basis, where the context permits. Students will be required to read and report on various aspects of the issues studied.

"All Applied Academics courses will stress the use of principles, laws, formulas and rules in the real world as opposed to focusing on proofs of principals and laws, the derivation of formulas, or the evolution of rules."

Issues will be examined in their current context, in contrast to studying their origin for the purpose of showing their evolution. For example, in dealing with abortion issues, the focus will be on the effect of either view on the lives of those holding it, in contract to the historical study of how that view developed over time.

SUBMITTED BY: _____ **DATE:** _____

APPROVED BY: _____ **DATE:** _____

WEEKLY SCHEDULE

Background: Since 1945 the US has seen an exponential expansion of the rights of citizens and residents in various roles. During the same period there appears to have been a significant diminution of the citizen's and resident's responsibilities. his course explores the issue of correlative responsibilities and rights in a free society, posing the question "Does the exercise of each right in a free society entail the obligation to assume a correlative responsibility? In addition to assisting the student to think clearly about complex issues, it will add the dimension of values to the process of critical thinking.

Where possible, students will explore issues in the physical setting in which the problems arise in today's society. Students will role play as individuals involved in the problems being examined. Hypothetical problems posed will be taken from one or more actual cases involving administrative or court processed dealing tithe the responsibilities and rights being studied. Professionals actively engaged in dealing with situations involving the rights and responsibilities being examined, will be sued to discuss the situations either in the classroom or in the actual setting. Students will work cooperatively in teams of two or more in exploring the various facets of individual responsibilities and rights.

Week 1: Basic premises of individual responsibilities and rights
Weeks 2-4; In the employment relationship
Weeks 5-6; At different levels of government
Weeks 7-8: Member of a family
Week 9: Summary review

WEEK 1-Examine situations out of which individual responsibilities and rights arise, highlighting the difference between a status and a contractual society. Look at the means and manner of the protection and growth of individual responsibilities and rights as a function of force, legislation, court decisions and public pressure. Examine written constitutions as the repository of individual responsibilities and rights. Define against what or who do individual rights protect and in favor of who or what are individual responsibilities enforced. Explore the basic premises underlying the existence of individual responsibilities and rights, if any, in a free society.

WEEK 2-Employees responsibilities and rights. Examine the employment relationship from its inception through the present. Discuss employee rights and responsibilities under union agreements with union and company management personnel. Visit a union shop to discuss with the steward and supervisors how union rights are protected and examine the correlative obligations those rights entail.

WEEK 3-Employer's responsibilities and rights. Examine the employers right to the work product, the knowledge required to produce the work product, and the right to control the conditions under which the work is performed. Look at the responsibilities those employer' rights impose, and how those obligations are enforced.

WEEK 4-Examine employment responsibilities and rights as affected by technological change both in the recent past and as predicted for the immediate future involving interests such as confidentiality, privacy, ownership of intellectual property, etc..

WEEK 5-Examine individual responsibilities and rights as a citizen of different levels of governments; nation, state, county and city. How are they defined, under what authority and by what system protected and enforced. Political activities and court cases as they have affected specific responsibilities and rights will be studied. Those will be related to specific rights and responsibilities such as payment of taxes, protection of property, reputation, ability to earn a living, etc..

WEEKLY SCHEDULE (CONT.)

WEEK 6-Examine freedom of Speech, of Religion, from Want. Explore what each such freedom entails and what it is not with respect to the issue of abortion rights. Discuss how those rights are viewed by a leader of an anti-abortion rights group, and attorney for abortion clinic or an abortion rights group and a young man and woman making the decision to have or not to have an abortion.

WEEK 7-Examine responsibilities and rights in the roles of parent, spouse, child, attendee at a public school and consumer of products and services. How do they vary with respect to age, gender, health, citizenship. Discuss the differing standards applied to children, women, men in education and employment.
Visit a family court.

WEEK 8-Examine a child's right and a parent's obligation of support. How has society organized enforcement of this relationship. What are the constitutional issues involved in that process and the interests of various levels of government in their enforcement. Examine the rights of freedom from abuse, to medical treatment and to education. Focus on the conflict between the traditional view of the parent's rights and obligation to make decisions for the child, versus the growing view in limited cases involving and conflict between the parent's religious views and what society is coming to see as essential to the child's protection and development.

WEEK 9-Review the course.

HUM 113: "APPLIED ESTHETICS"

for:

Applied Academics

Developed and Delivered by:

Randall Nelson
Reference Librarian
and
Photography Instructor
South Seattle Community College

Spring Quarter 1993

COURSE OUTLINE

DEPARTMENT:	Technical Education Division
CURRICULUM:	Applied Technology
COURSE TITLE:	Applied Esthetics
COURSE NUMBER:	HUM 113
COLLEGE TRANSFER:	No (Potentially, Yes)
TYPE OF COURSE:	Vocational Technical Education
COURSE LENGTH:	One Quarter
CREDIT HOURS:	5
HOURS:	Lecture Hours 27 Lab Hours Home Work Hours 50 Other Hours 20 Total Hours 97
CLASS SIZE:	30
COURSE DESCRIPTION:	An esthetic approach to technology and the world of work will be developed. The concepts of quality, craftsmanship, beauty, good design, and a good work environment will be explored.from a variety of viewpoints including the philosophical, economic, technological, psychological. Multicultural and international perspectives will be presented.
COURSE HISTORY:	Originally developed by Randall Nelson in 1992. Revised after critique by the Boeing Company in 1993.
REREQUISITES:	None

COURSE OUTLINE (CONT.)

LEARNING OBJECTIVES:	HOURS OF INSTRUCTION
A. CITIZENSHIP KNOW-HOW:	
1. RIGHTS AND RESPONSIBILITIES OF CITIZENS	1
2. WORKPLACE ETHICS	1
3. APPLIED ART	NA
4. APPLIED HISTORY	6
5. CRITICAL THINKING	1
B. WORKPLACE KNOW-HOW:	
FIVE WORKPLACE COMPETENCIES	
1. Resources:	
1) Time	1
2) Money	1
3) Material and Facilities	1
4) Human Resources	1
2. Interpersonal:	
1) Participates as Member of a Team	5
2) Teaches Others New Skills	
3) Serves Clients/Customers	
4) Exercises Leadership	
5) Negotiates	
6) Works with Diversity	5
3. Uses Information:	
1) Acquires and Evaluates Information	2
2) Organizes and Maintains Information	
3) Interprets and Communicates Information	
4) Uses Computers to Process Information	
4. Systems:	
1) Understands Systems	
2) Monitors and Corrects Performance	
3) Improves or Designs Systems	
5. Technology	

COURSE OUTLINE (CONT.)

LEARNING OBJECTIVES:	HOURS OF INSTRUCTION
THREE FOUNDATION SKILLS	
1. Basic Skills:	
1) Reading	1
2) Writing	1
3) Arithmetic/Mathematics	
4) Listening	
5) Speaking	1
2. Thinking Skills:	
1) Creative Thinking	3
2) Decision Making	1
3) Problem Solving	
4) Seeing Things in the Mind's Eye	3
5) Knowing How to Learn	1
6) Reasoning	1
3. Personal Qualities:	
1) Responsibility	
2) Self-Esteem	1
3) Sociability	1
4) Self-Management	
5) Integrity/Honesty	
C. ACADEMIC SPECIFIC AND VOCATIONAL SPECIFIC KNOW-HOW	
1. ESTHETIC VALUES	**4**
a. The Good	
b. Good Quality	
c. Craftsmanship	
c. Beauty	
d. Form	
e. Functionality	
f. Style	
g. Fashion	
h. Good Engineering	
i. Luxury	
j. Simplicity	
k. Expression of Materials	
l. Order	
m. Fulfillment of purpose	
n. Individuality, inspiration, originality, and authorship	
o. Teamwork	
p. Pride	
2. THE PSYCHOLOGY OF PERCEPTION	**2**

COURSE OUTLINE (CONT.)

3. FORMAL ELEMENTS OF DESIGN 3

a. Line
b. Space
c. Shape and Mass
d. Color
e. Texture and Pattern
f. Unity and Variety
g. Balance, Emphasis, and Rhythm
h. Proportion and Scale
i. Symbolism

4. SOCIAL VALUES 1

a. National Identity
b. Social Class
c. Gender
d. Community

5. ECONOMICS AND DESIGN 2

a. The Consumer
b. Mass production and manufacturing
c. Competition and capitalism
d. Public goods and the public sector

6. PRODUCTION 4

a. The artist
b. The craftsman
c. The production worker
d. The assembly line
e. Team concepts of production
f. The Quality Revolution and you
g. Total Quality Management

7. MATERIALS 3

a. The human form, adornment, performance, and *human factors engineering
b. Food
c. Wood
d. Metal
e. Clay
f. Glass
g. Fiber
h. Plastics
i. Electronics
j. Plantlife

COURSE OUTLINE (CONT.)

8. VOCATIONAL APPLICATIONS 3

a. Cosmetology
b. Automotive and Diesel Technology
c. Aviation Maintenance
d. Business and Office
e. Computing Technology
f. Industrial Control/ Avionics/ Robotics
g. Engineering Technology/ Drafting and Design
h. Floristry
i. Hazardous Materials Handling and Management
j. Hospitality and Food Science
k. Industrial Machining
l. Landscape and Environmental Horticulture
m. Quality Control Technology
n. Welding Fabrication technology

COURSE SYLLABUS

General Information:

Course Number:	HUM 113
Course Title:	Applied Esthetics
Instructor:	Randall Nelson
Office Phone:	764-5395
Home Phone:	937-0441

Course Description: An esthetic approach to technology and the world of work will be developed. The concepts of quality, beauty, good design, and a good work environment will be explored from a variety of viewpoints including the philosophical, economic, technological, and psychological. Multicultural and international perspectives will be developed.

Required Textbooks: David Halberstam, The Reckoning. (New York: Avon Books, 1986.)

Required Reading: A packet of materials is on reserve in the library for every week.

Course Schedule: See following Weekly Schedule.

Evaluation Policy: Either a weekly assignment or quiz will be given for each of 8 weeks. Quizzes will be on Mondays. Assignments will be due on Mondays. The lowest grade including any missed assignment or quiz may be thrown out. Late assignments will be marked down one full grade point. Quizzes may be made up only for approved absences. A final project is also required and due on the last day of class. The final exam will be a brief oral presentation of the final project.

Grading Procedure: The weekly assignments and quizzes are worth 50% of the final grade. The final project is worth 40%. The presentation 10%

Submitted by: _____ Date: _____

Approved by: _____ Date: _____

Weekly Schedule - HUM 113

Week 1

Introduction to the Course
- Outline of expectations
- Definitions
- Introduction to term project
- Visit to Instructional Resources Center
- Getting acquainted with fellow students and their vocational objectives.
- History of art and design.

Week 2

Assignment 1 due: Tentative topic for-term project.
History of art and design
Field trip to Seattle Art Museum.
- Term project consultation with instructor

Week 3

Quiz: History of art and design.
The psychology of perception.
The creative process.
The role of the individual and the group
- Term project consultation with instructor

Week 4

Quiz: Perception and creativity.
The formal elements of design.
Field trip to Museum of History and Industry.
- Term project consultation with instructor

Week 5

Quiz: Formal elements of design.
Material science and engineering.
The history of technology and production I
- Approval of term project by instructor

Week 6

Assignment due: Small design project related to students' areas of interest.
Field trip to Museum of Flight.
Architecture and work environments
The history of technology and production: The assembly line Term project consultation with instructor

Weekly Schedule - HUM 113

Week 7

Assignment due: Small project related to work environment. Economics, accounting, production engineering, and design.
The history of technology and production: Deming, team concepts, and quality
Term project consultation with instructor

Week 8

Quiz: Economics, accounting, production engineering, and design Modern and Post-Modern Design
Esthetics, craftsmanship, and quality in an international economy and multicultural environment

Week 9

Assignment due: Essay on some aspect of current production
Discussion of esthetics and the various vocational areas represented by students in the class, including a few oral presentations of term projects

HUM 113
RANDALL NELSON

TERM PROJECT

The term project is 50% of your grade and is thereby very important. Its form and content is quite open. Therefore, it is important that it be taken seriously, that it be worked on during the whole quarter, and that I keep in touch with each student about its progress. To that end I will be scheduling time during the quarter for term project work and consultation with me. All term project topics must be approved by me by the 5th week of the quarter. Term projects should be group projects. All participants must be approved by me by the 5th week of the quarter. The term project can be objects or documents such as term papers or, preferably, a combination. The project must link a vocation or work situation with esthetics, quality, craftsmanship, or design. Students are encouraged to link this project with work in other classes or with a work situation. Examples of projects can be a demonstration and discussion of the esthetic qualities, i.e. craftsmanship of various types of welds or welding techniques and their impact on the perception of quality, a demonstration and discussion of the perception of quality in different methods of auto painting, choice of colors, etc., or the design and execution of different graphical presentations in a particular software program.

COURSE OUTLINE (CONT.)

Conformance to Standards

"All applied Academics courses will be taught in the context of real world settings including the workplace, home and community."

Esthetics and design of products and work environments are the central concerns of this course. The term project is designed to connect this course with students' vocational concerns.

"All Applied Academics courses will emphasize cooperative learning as a primary instruction model."

The term project will emphasize cooperative learning.

"All Applied Academics courses will stress the use of principles, laws, formulas and rules in the real world as opposed to focusing on proofs of principles and laws, the derivation of formulas, or the evolution of rules."

This course is about art - but its is about the art of products or commodities in the real world of business, consumers, and engineering.

Submitted by:_____ Date:_____

Approved by: _____ Date:_____

COURSE OUTLINE

DEPARTMENT: Technical Education Division

CURRICULUM: Undetermined

COURSE TITLE: Lifecycles of Technology

COURSE NUMBER: HUM 114

COLLEGE TRANSFER: Undetermined

TYPE OF COURSE: Preparatory

COURSE LENGTH: One quarter

CREDIT HOURS: 3

HOURS:

Lecture Hours	24
Lab Hours	
Homework Hours	48
Other Hours	20
Total Hours	92

CLASS SIZE: 20

COURSE DESCRIPTION: The purpose of this course is to emphasize the inevitability of change by using the content, analytical and research methods and writing techniques of history to help the student to understand, anticipate and benefit from change in the technology of his or her chosen career. Against the background of 1960-1990 United States'technology, the student examines changes occurring in the industry in which he or she intends to work, doing research, analysis and writing on changes in the student's chosen technology affecting that industry.

COURSE HISTORY: Developed by Robert Free in September, 1992

PREREQUISITES: None

COURSE OUTLINE (CONT.)

LEARNING OBJECTIVES:	HOURS OF INSTRUCTION
A. CITIZENSHIP KNOW-HOW:	
1. RIGHTS AND RESPONSIBILITIES	
2. CRITICAL THINKING/WORKPLACE ETHICS	
3. APPLIED ESTHETICS	
4. LIFECYCLES OF TECHNOLOGY	24
B. WORKPLACE KNOW-HOW:	
FIVE WORK PLACE COMPETENCIES	
1. Resources:	
1) Time	2
2) Money	
3) Material and Facilities	
4) Human Resources	
2. Interpersonal:	
1) Participates as Member of a Team	1
2) Teaches Others New Skills	
3) Serves Clients/Customers	
4) Exercises Leadership	
5) Negotiates	2
6) Works with Diversity	1
3. Uses Information:	
1) Acquires and Evaluates Information	3
2) Organizes and Maintains Information	1
3) Interprets and Communicates Information	1
4) Uses Computers to Process Information	
4. Systems:	
1) Understands Systems	
2) Monitors and Corrects Performance	
3) Improves or Designs Systems	
5. Technology: (See Vocation Specific Know-How)	

COURSE OUTLINE (CONT.)

LEARNING OBJECTIVES:(Contd.) HOURS OF INSTRUCTION

THREE FOUNDATION SKILLS:

1. Basic Skills:
    - 1) Reading 2
    - 2) Writing 2
    - 3) Arithmetic/Mathematics
    - 4) Listening 1
    - 5) Speaking 1

2. Thinking Skills
    - 1) Creative Thinking 1
    - 2) Decision Making
    - 3) Problem Solving 1
    - 4) Seeing Things in the Mind's Eye 1
    - 5) Knowing How to Learn
    - 6) Reasoning 1

3. Personal Qualities:
    - 1) Responsibility 1
    - 2) Self-Esteem
    - 3) Sociability
    - 4) Self-Management
    - 5) Integrity/Honesty 1

C.ACADEMIC VOCATIONAL SPECIFIC KNOW-HOW:
Includes machine, process, product, material, or industry specific instruction and varies with each program.

Submitted by: _____ **Date:** _____

Approved by: _____ **Date:**_____

COURSE SYLLABUS

GENERAL INFORMATION:

COURSE NUMBER: HUM 114

COURSE TITLE: Lifecycles of Technology

INSTRUCTOR:

OFFICE LOCATION:

OFFICE HOURS:

OFFICE PHONE NO.:

COURSE DESCRIPTION: Emphasizing the inevitability of change, the course uses the historiographical techniques (historical methodology) techniques of research, analysis and writing to give the student an insight to understand, anticipate and benefit from changes in the industrial technology of the student's chosen career.

REQUIRED TEXTBOOKS: Research Handbook (To be announced)

COURSE SCHEDULE: See following Weekly Schedule

EVALUATION POLICY: Assignments will be due when assigned. Assignments must be turned in but their content and writing will not be graded: only thorough completion will be required.

GRADING PROCEDURE: 40% of the grade will be based on completing assignments. 20% on three examinations. 20% will be based on student participation.

OTHER POLICIES: Any unexcused absence will be cause for being dropped from the course. Excuses from licensed health care professionals are accepted. Excused absence does not relieve the student of the responsibility for assignments and lecture materials. Students missing lectures are responsible for finding out What they missed from a classmate cheating, plagiarism, hurtful or harmful behavior toward others, and violation of good safety practices shall be grounds for discipline in accordance with school rules.

COURSE SYLLABUS

CONFORMANCE TO GUIDELINES: Explain how the course conforms to each of the following instruction standards:

"Applied Academics courses will be taught in the context of real world settings including the workplace, home and community."

When possible, discussion will occur in the setting--workplace, court, government office, etc.--in which the problem being discussed arises. For example, in showing the effects on an industry or technology of court decisions regarding product liability the discussion will occur in the business setting in which the technical and management staff must deal with the change. The case method using hypothetical situations from actual cases, will be used to illustrate the issues being discussed.

"Applied Academics courses will emphasize cooperative learning as a primary instruction model."

In discussing and issue or concept, two or more students will take opposing sides as teams and play the role of persons having to deal with the issue being discussed. To the extent possible, research, writing and editing will be done in teams, to emphasize team work and cooperation. Assignments will be on a team or pair basis, where the context permits. Students will be required to read and report orally on various aspects of the issues studied in pairs.

"Applied academics courses will stress the use of principles, laws, formulas and rules in the real world as opposed to focusing on proofs of principals and laws, the derivation of formulas, or the evolution of rules."

Issues will be examined in their present context, in contrast to their origin, for the purpose of showing change, not their evolution. For example in dealing with the issue of changes in product liability, the focus will be on the effect of the change in an industry affected by the change, in contrast to the historical study of how that change developed over time.

SUBMITTED BY: _____ **DATE:**

APPROVED BY: _____ **DATE:**

WEEKLY SCHEDULE

WEEK 1

Provide an overview of the course including an outline, assignments, review grading and other applicable policies and requirements,

Introduction to library resources;Start development of bibliography, introduce use of reference works catalogues, periodical indexes, etc.,

Student will begin defining an "assumed identity" for the purpose of assessing the impact of change on an individual's personal and working life through the 30 year period.

(Assignment chart reference section of SSCC and Seattle Public Library reference sections.)

WEEK 2

1945-1960 Review from the end of WWII to 1960,

Discuss research techniques of historical method,

(Assignment: Select writing topic. Submit schematic charts of SSCC and Seattle public library reference sections. Begin development of bibliography of writing topic.

WEEK 3

Begin review of 1960-1968
Discuss effect of changed legal interpretation--Effect of strict liability doctrine.

Visit manufacturing facility.

Discuss effect of strict liability on business and technology.

WEEK 4

Discuss methods of defining the subject, methods of reading, note taking, organizing notes and refinement of subject and form and the finding and verification of facts.

Review with each student topic selected and extent of bibliography developed.

Review 1968-1980

Regulatory policy--Review state of environmental protection laws at state and federal level.

WEEK 5

Visit state or federal regulatory agency concerned with environmental issues to gain insight into the effects of governmental policy on development of technology.
Visit industrial organization for discussion of how regulatory policies affect operations, manpower, costs.
Discuss how historians handle facts and ideas, truth and causation and patterns, bias, periods and labels.
(Assignment: Bibliography developed, a description of the student's note taking system, and several examples of notes taken from various sources.

WEEKLY SCHEDULE (CONT.)

WEEK 6

Discuss organizing for writing, considerations of form, steps of organizing and the use of an outline. Focus the attention on use of plain words and writing of clear sentences.

Review 1980-1990.

Quality Control-Examine the development of quality control as an industrial technique and its effects upon business and technology.

WEEK 7

Visit Quality Control department of manufacturer for discussion of effects of quality control on current operations.

Discuss quotations, footnotes, bibliographies, and bibliographic citations. Considers the distinctions between conventions in writing history and writing for technical reports.

1990-2000/Summarize historical projections through 1990.
Compare methods of projecting history into the future.

WEEK 8

Technology Assessment-Discuss the methodology of technology assessment, its development and current uses.
(Lecture by former Congressman Mike McCormack)

Visit a high technology manufacturing operation to get a feel for how an organization projects its existing technology and business through the year 2000.

Writing, editing and revising will review the methods of final verification of details, and the correction of errors, gaffs and blunders for the final paper.

Week 9

Summarize the course.

Assignment: completed paper.